PROJECT PROGRESS REPORT

FOR THE KOREA HEALTH DEMONSTRATION LOAN PROJECT

January 1 - August 31, 1976

NATIONAL HEALTH SECRETARIAT

KOREA DEVELOPMENT INSTITUTE

CONTENTS

ATTACHMENTS

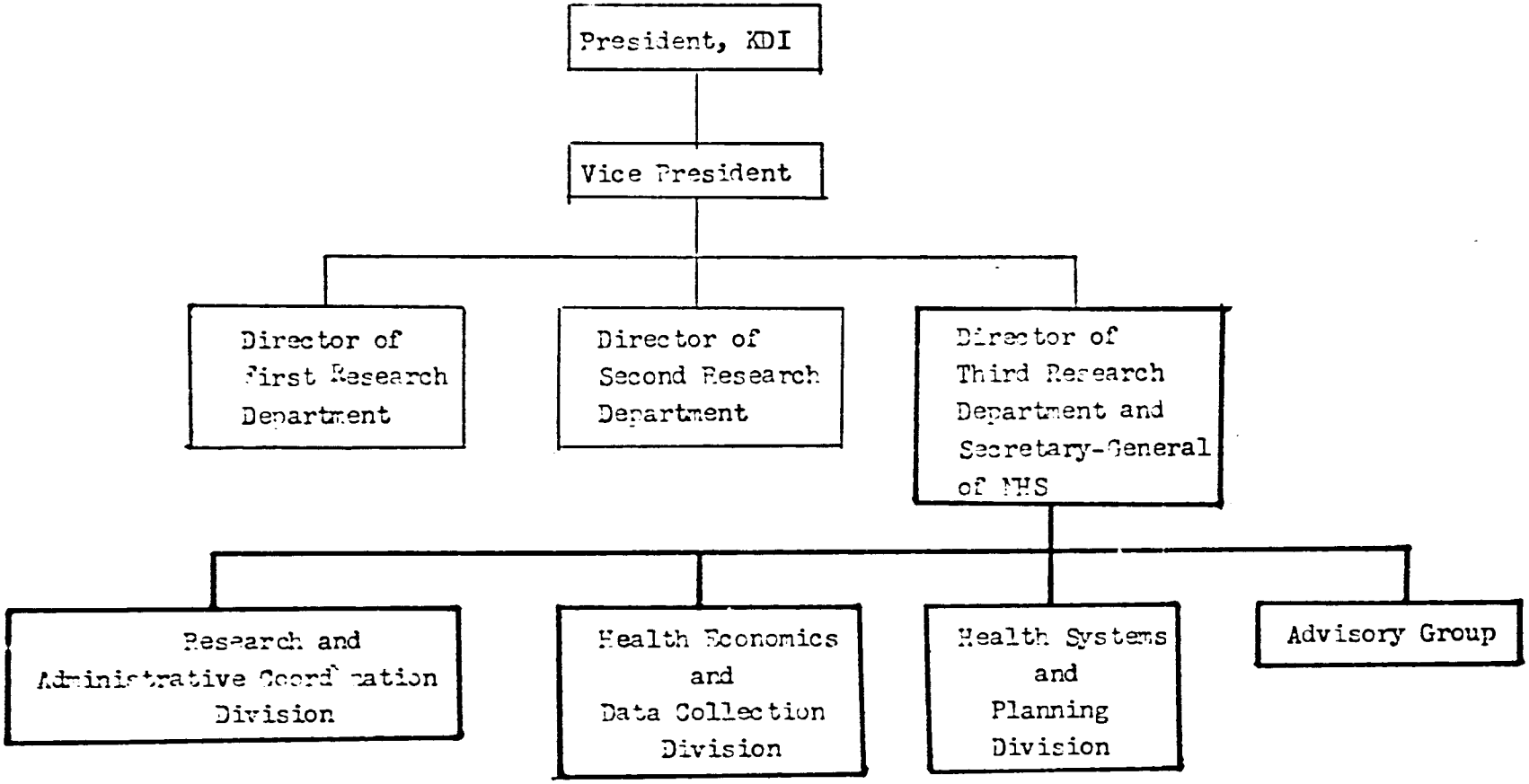
NATIONAL HEALTH SECRETARIAT

PROJECT PROGRESS REPORT
FOR THE KOREA HEALTH DEMONSTRATION LOAN PROJECT
(January 1 - August 31, 1976)

1. General

1.1. Under the terms of the Korea Health Demonstration Project Loan Agreement between the Republic of Korea and the United States of America (enacted on September 31th, 1975 as Project No. 489-22-590-710), in January 1976, as part of the prerequisities to creating the National Health Secretariat (NHS), specification was made of the role, function, and mission as well as of the NHS work program for the remainder of the year. The drafts were revised and elaborated as a result of discussions occurring at seven meetings of the Ad Hoc Loan Committee held over the period, February through March. The role, function, and mission as well as the NHS work program, including its organization structure and budget plan for project activities were approved at the First Meeting of the National Health Council on April 4, 1976. Also as from April 4th, the NHS is established within the Korea Development Institute.

1.2. The organizational chart of the NHS where in there are three operating divisions in addition to an Advisory Group is presented below.


President, KDI
Vice President
Director of First Research Department
Director of Second Research Department
Director of Third Research Department and Secretary-General of MHS
Research and Administrative Coordination Division
Health Economics and Data Collection Division
Health Systems and Planning Division
Advisory Group

1.3. The staff complement of the IHS totals 14. Currently, one position is vacant. The actual number of staff is compared with that approved (approved/assigned) in the following table:

Title	Office of Secretary-General	Research and Administrative Coordination Division	Health Economics and Data Collection Division	Health Systems and Planning Division	Totals
Senior fellow	1/$\frac{1}{2}$	1/0	1/$\frac{1}{2}$ *	1/$\frac{1}{2}$ *	4/1$\frac{1}{2}$
Research associate	-	1/1	1/1	1/1	3/3
Researcher	1/0	1/1	1/1	1/1	4/3
Research assistant	-	1/1	1/1	1/1	3/3
Technician (driver)	0/1				0/1
Totals	2/1$\frac{1}{2}$	4/3	4/3$\frac{1}{2}$	4/3$\frac{1}{2}$	14/11$\frac{1}{2}$

* Two incumbents on half-time will be replaced by a full-time senior fellow in the field of public health and demography respectively in or about January 1977.

1.4. The Secretariat performs the following functions -

(1) General Functions:

To conduct general planning, research and program review activities to support the NHC and EPB in their efforts to improve macro-planning for the health sector.

(2) Specific Functions and Responsibilities:

A. Division of Research and Administrative Coordination

(a) directing and coordinating policy-oriented research, as requested by EPB or NHC, for the purpose of providing needed information for macro-planning and policy formulation.

(b) preparing policy and program recommendations for the NHC, KHDI, and EPB based on research and program review results, in consultation with the secretariat advisory group.

(c) conducting policy-oriented seminars and conferences on health issues for policy makers and opinion leaders.

(d) facilitating contacts between domestic and foreign researchers, institutions, and organizations active in the low-cost health services delivery field.

(e) coordinating overall NHS activities, developing and administering NHS budget and work plan.

B. Health Economics and Data Collection Division

(a) conducting general review and evaluation of the overall programmatic experiences of KHDI projects and other activities funded under the loan.

(b) developing a broad framework for classifying national health problems and establishing a comprehensive cross-file and data bank on completed studies and work in progress related to these health problems.

(c) preparing data analysis, defining data requirements for health planning, and conducting cost analysis.

(d) developing health planning and economic indicators on a continuing basis.

C. Health Systems and Planning Division

(a) analyzing local and foreign experiences of relevance to the formulation of national health program and strategy alternatives (to be implemented in cooperation with the KHDI).

(b) evaluating and analyzing health systems based on health systems developments and health resources (health services, facilities, and manpower) planning.

(c) conducting macro health research and planning activities including "rolling plan" adjustment and revision.

D. Advisory Committee: Supporting and providing consultant services to NHS.

2. Work Plan and Project Progress

2.1. Progress of Activities by Divison

Division	Project	List of Actions	Major Action Date
A. Research and Administrative Coordination Division	(1) Research, Maintenance and Distribution of Data	a. Reviewed first the final report, "Disease Patterns of Koreans- with special considerations on validity of availble data", submitted by Dr. Jung Soon Kim, SNU, among the 8 priority research projects funded in 1975.	Received the fin. report on July 30, 1976 Paid the entire amount of research contract funds payable in the interim on August 30, 1976
		b. Second payment was made to 8 health planning research projects with interim reports had been submitted, among the 9 priority research projects funded in 1976.	August 31, 1976
		c. Collected 47 items of literature (**See Book List, Attachment I**).	July 25, 1976
	(2) Health Planning and Policy-oriented Symposium	a. Designed symposium program before presenting health issues at a symposium to be conducted at the end of November and selecting Key Note speakers and discussants (see Symposium Program, Attachment II).	August 20, 1976

(3) Exchange of Information between Domestic and Foreign Institutions	a. Collected 12 items of reference materials such as newspapers, journals and other periodicals from local institutions (see Bibliography, Attachment III).	August 31, 1976
	b. Collected 79 items of reference materials from foreign institutions (see Bibliography, Attachment IV).	August 31, 1976
(4) Collection and Analysis of Basic Data for Study of a Comprehensive Health Insurance System and Workshop	a. Observed 6 health insurance society projects.	July 25, 1976
	b. At two workshops attended by Dr. Chong Kee Park(KDI), Dr. Hakchung Choo(KDI), Dr. Ok Ryun Moon(SNU), Dr. Chong In Kim(Sogang University), Dr. Il Soon Kim (Yonsei University), Mr. Jae Sung Min(KDI) and Mr. Soon Lee (KHDI), — reviewed both health insurance schemes proposed by EPB and MCHSA; — reviewed health insurance systems in foreign countries; — analyzed on-going health insurance projects; — discussed methods of the introduction of a comprehensive health insurance system and a model of the system.	June 30, 1976 July 30, 1976
(5) Operation of Advisory Group	a. Selection of members is under consideration.	

Division	Project	List of Actions	Major Action Date
B. Health Economics and Data Collection Division	(1) Development of Criteria of Evaluation of Demonstration Projects and Data Collection	a. Collected data for the development of evaluation mechanism from demonstration projects by field trips organized with four teams.	June 16-26, 1976
		b. Attended workshops on study of methods of evaluation (three times).	July 21-August 22, 1976
		c. Literature being collected to develop criteria for evaluation.	August 31, 1976
	(2) Study of Improvement of Health Statistics System	a. Analyzed coverage, survey institution, period, sample design, and magnitude of the health statistics collected (see List of Data, Attachment V).	April 20-June 30, 1976
		b. At a consultant meeting attended by Dr. Hackchung Choo(KDI), Mr. Yeon Su Park(MOHSA), Dr. Jong Kun Kim(SNU), Dr. Dong Woo Lee (Yonsei University), and Mr. Hak Yung Kim (KDI/NHS), discussed the methods of improvement of Health statistics system and recommended to establish a classification system in three categories as follows: — (a) Health Status Statistics o Mortality o Life expectancy o Morbidity and disability o Physical status — (b) Health Care Statistics o Utilization of health services o Medical cost o Health facilities o Health manpower — (c) Health Related Statistics o Nutrition and food o Housing o Environment o Pollution o Others	July 10, 1976

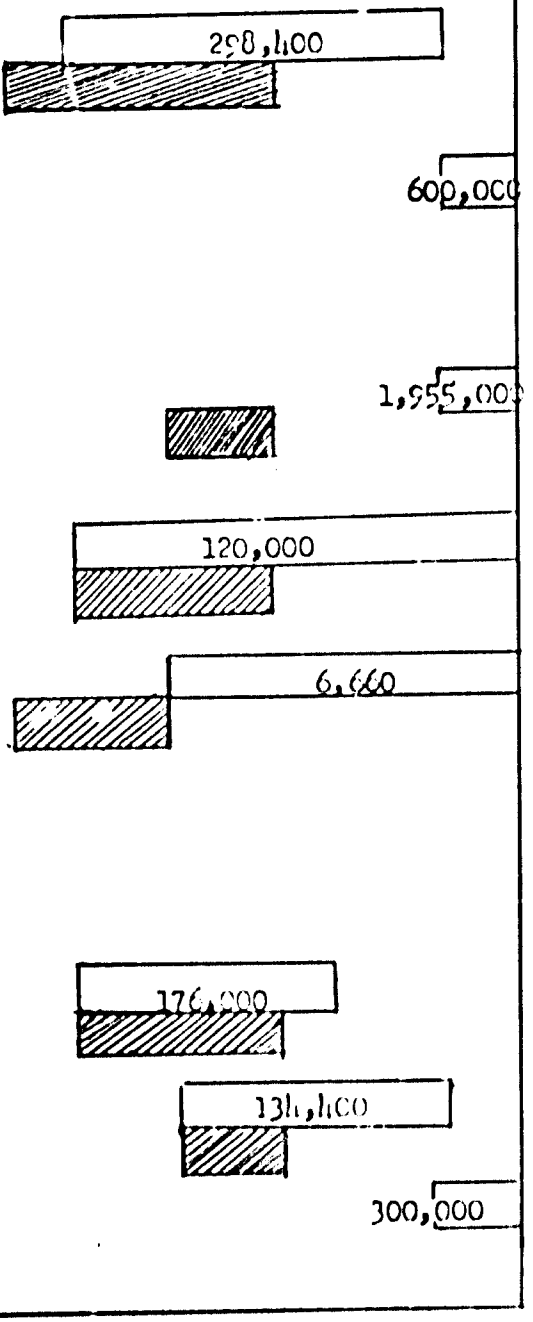
	c. Methods of revision and improvement of health data are being reviewed.	1976
(3) Analysis of Spacial Accessibility to Medical Care Facilities-A Feasibility Study of Medical Regionalization	a. Completed a recording work on maps for the geographical distribution of health facilities and transportation conditions.	July 30, 1976
	b. Estimated accessibility to medical care facilities at a given time on the object of four provinces.	August 20, 1976
	c. Estimation on remaining provinces is underway.	August 31, 1976
	d. Detailed analysis works are shown in Attachment VI.	

Division	Project	List of Actions	Major Action Date
C. Health Systems and Planning Division	(1) Analysis of Hospital Management Systems	a. Computer program is being designed for the provision of analytical findings on acute general hospitals by utilizing hospital census data conducted by the Korean Hospital Association in 1973.	August 31, 1976
		b. Selected data from 132 hospitals and designed 300 variables such as hospital bed ratio, hospital doctor ratio, number of health workers, days treated per patient, average bed occupancy, number of out-patients, average length of stay, average daily number of out-patients and outpatient visits, average medical expenses of the outpatients, rate of beds in use, etc.	
	(2) A Compartive Study of Medical Care Systems in Selected Countries	a. Collected information on health insurance schemes from 8 countries; Federal Republic of Germany (Health Insurance), Japan (Health Insurance), Malaysia (Medical Care), Philippines (Medicare), People's Republic of China (Social Insurance), Sweden (Health Insurance), United Kingdom (Social Security and National Health Service) and United States of America (Health Insurance).	July 30, 1976
		b. Collected information is being analyzed for a report.	Agust 31, 1976
	(3) Support of Health Planning Activities of Rolling Plan Adjustments and Revisions	a. Convened eight meetings of a Task Force to formulate and implement rational health policy and health development plans and programs of relevance to the fourth Five-Year Health Plan, and recommend IPB alternative methods of improvement of urban and rural health care delivery system, manpower development, and establishment of health insurance scheme (see National Health Insurance Scheme, Attachment VII).	June 21-July 31, 1976

2.2. Achievment of the Project Targets

The following bar chart of work plan contains budget for the planned activities in a total amount of 28,000,000 Won for 1976. *

Major Project	Detailed Programs		1/4			2/4			3/4			4/4		
			1	2	3	4	5	6	7	8	9	10	11	12
A. Research and Administrative Coordination	(1) Research, Maintenance and Distribution of Data													
	a. Data collection and study	P [i]												
		A [ii]												
	b. Prepare policy papers	P												
		A												
	(2) Health Planning and Policy Symposium													
	a. Symposium	P												
		A												
	(3) Exchange of Information													
	a. Purchase of Literature	P												
		A												
	b. Exchange of Literature	P												
		A												
	(4) Study of a Comprehensive Health Insurance System and Workshop													
	a. Collection of data	P												
		A												
	b. Analytical evaluation	P												
		A												
	c. Prepare report	P												
		A												

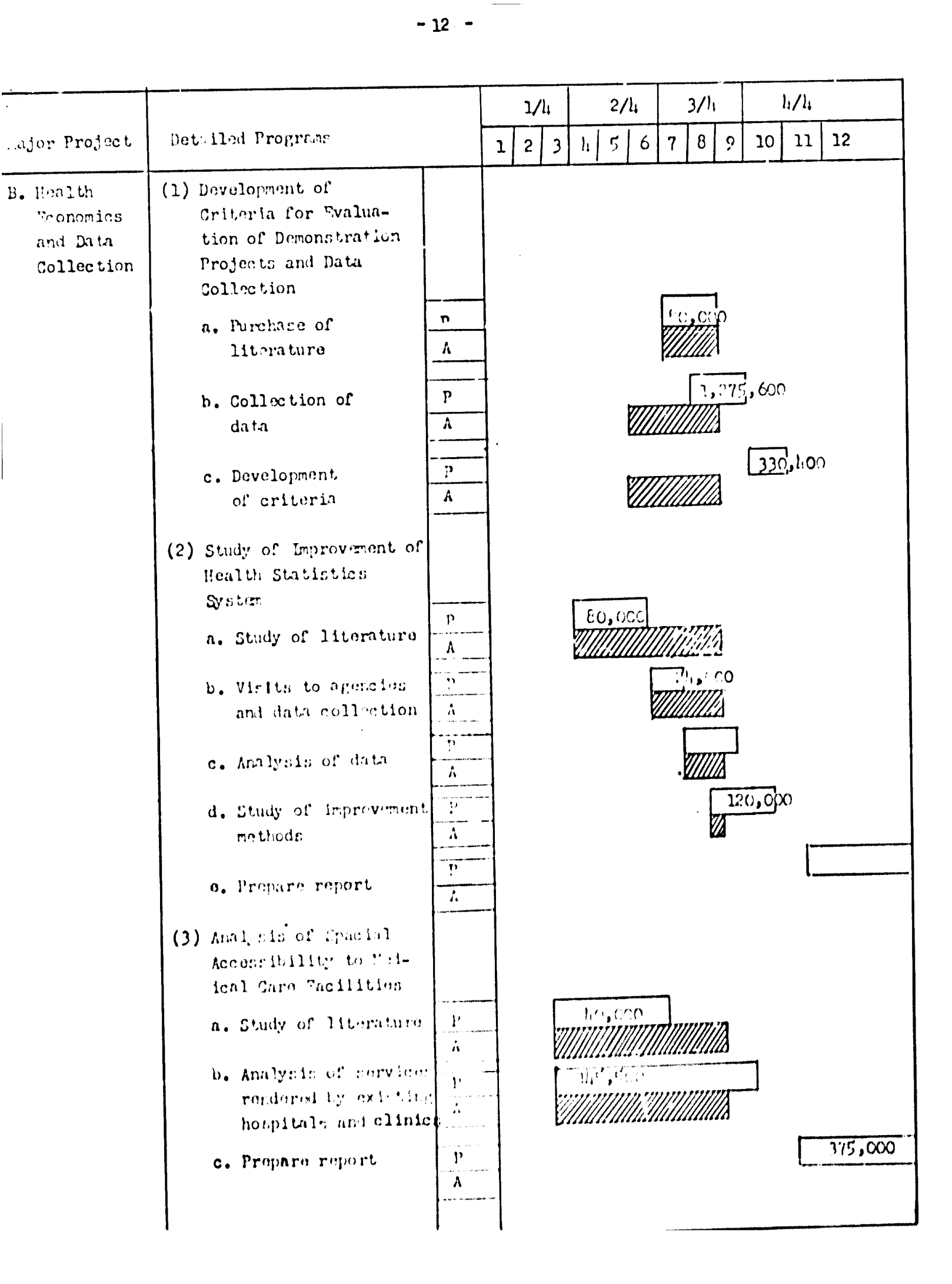


[i] P is "Planned"

[ii] A is "Actual Performance"

* Attachment VIII shows the comparison between budget and expenditure as at the

Major Project	Detailed Programs		1/4			2/4			3/4			4/4		
			1	2	3	4	5	6	7	8	9	10	11	12
B. Health Economics and Data Collection	(1) Development of Criteria for Evaluation of Demonstration Projects and Data Collection													
	a. Purchase of literature	P												
		A												
	b. Collection of data	P												
		A												
	c. Development of criteria	P												
		A												
	(2) Study of Improvement of Health Statistics System													
	a. Study of literature	P												
		A												
	b. Visits to agencies and data collection	P												
		A												
	c. Analysis of data	P												
		A												
	d. Study of improvement methods	P												
		A												
	e. Prepare report	P												
		A												
	(3) Analysis of Spacial Accessibility to Medical Care Facilities													
	a. Study of literature	P												
		A												
	b. Analysis of services rendered by existing hospitals and clinics	P												
		A												
	c. Prepare report	P												
		A												



Major Project	Detailed Programs		1/4			2/4			3/4			4/4		
			1	2	3	4	5	6	7	8	9	10	11	12
C. Health Systems and Planning	(1) Analysis of Hospital Management System													
	a. Supplement of data	P					120,200							
		A												
	b. Coding and punching	P						12,200						
		A												
	c. Analysis	P							100,000					
		A												
	d. Prepare report	P								225,000				
		A												
	(2) A Comparative Study of Medical Care Systems in Selected Countries													
	a. Collection of data	P							214,000					
		A												
	b. Analysis and evaluation	P								60,000				
		A												
	c. Prepare report	P											200,000	
		A												
	(3) Support of Health Planning Activities													
	a. Review of draft plan	P											21,600	
		A												
	b. Adjustments and revisions	P											60,000	
		A												

Major Project	Detailed Programs		1/4 (1 2 3)	2/4 (4 5 6)	3/4 (7 8 9)	4/4 (10 11 12)
D. Operation of the Institution	(1) Operation of NHC	P				368.000
		A				
	(2) Operation of Advisory Group	P				282,000
		A				
	(3) Operation of NHS					
	a. Personnel expenses	P				5,054,200
		A				
	b. Travel expenses	P				505,800
		A				
	c. Stationery	P				1,300,000
		A				
	d. Purchase and mainterance of vehicle	P				4,207,360
		A				
	e. Supplies and equipment	P				3,161,812
		A				
	f. Special grants for duties and meeting expenses	P				1,120,000
		A				
	g. Others (allowances, research grants, purchase of literature, communication, and office maintenance costs)	P				2,231,840
		A				
	h. Contingency	P				2,687,028
		A				

Attachment I

Book List

English edition

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Attachment II

Tentative Symposium Program

1. Date : November 1976

2. Topic : The Development of a Low-cost Health Delivery System for Korea
   - Evaluation of Present Plan and Strategies
   - Proposals for an Efficient System and Health Development

3. Key Note Speakers : Deputy Prime Minister
   Minister of Health and Social Affairs

4. Scholars for Presentation : six persons from universities, KDI and professional associations

5. Discussants : six persons from government agencies, universities, KDI and professional associations

6. Provisional Agenda :

First Day

Opening Ceremony

Opening remarks

Keynote addresses

Morning Session

Evaluation of Present Plan and Strategies

- Research paper presentation
- Round table discussions

Afternoon Session

Proposals for an Efficient System

- Research paper presentation
- Round table discussions

Second Day

Morning Session

Recommendations for Health Development

- Round table discussions

Closing Ceremony

Closing remarks

Attachment III

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Attachment V

List of Health Statistics Collected

Serial No.	Statistics
1.	Monthly report on incidence and/or disposition of communicable diseases cases
2.	Report on incidence and death of 1st class legal communicable disease cases by year, month, sex, age, city, province, Ku, Gun, etc.
3.	Status of separate accomodation facilities for 1st class legal communicable disease cases
4.	Incidence and death rates of 2nd class legal communicable disease cases
5.	Status of vaccine production, distribution and its stock
6.	Status of vaccination
7.	Report on seaport quarantine activities
8.	Report on airport quarantine activities
9.	Tuberculosis cases registered in health centers
10.	Report on tuberculine test and BCG inoculation
11.	Report on drugs supplied to TB patients
12.	Report on tuberculosis control activities
13.	Report on status of leprosarium and its facilities
14.	Report on leprosy cases by age, education, etc.
15.	Report on registration of leprosy patients
16.	Report on intestinal parasite control activities
17.	Report on venereal disease control activities
18.	Report on family planning activities
19.	Report on maternal and child health care activities.
20.	Status of health care facilities and its distribution

21. Report on physicians activities in doctorless Myeon
22. Report on free medical care services
23. Report on patient care at major hospitals
24. Status of doctorless Myeon
25. Proportional population rate of doctorless Myeon
26. Report on public physicians activities
27. Status of nursing personnel
28. Registration of licensed physicians, dentists, pharmacists and herbalists
29. Status of specialists (physician)
30. Geographical distribution of medical facilities
31. Report on nutricians licensed
32. Report on training of health personnel by training institution
33. Results of national qualification examinations for health workers conducted by MOHSA
34. Report on legal enforcement measures against illegal health practitioners
35. Status of X-ray equipment provided in national and public institutions
36. Status of provision of vehicles for health services
37. Environmental pollution control activities
38. Status of environmental sanitation related establishments
39. Status of water supply and sewerage
40. Progress report of simple piped water supply works
41. Status of water supply
42. Status of waste disposal equipment

43. Report on waste disposal activities

44. Report of sanitary inspection to environmental sanitation related establishments

45. Report of inspection to food manufacturing establishments and restaurants

46. Status of food handling establishments

47. Report on production of food additives

48. Status of barbers and beauticians licensed

49. Status of crematoriums and public cemetery

50. Report on drug test activities by city and provinces

51. Report on pharmaceutical inspection

52. Test of quality of drugs

53. Status of medical practitioners and drug handlers

54. Report on production of drugs

55. Report on legal enforcement measures against illegal narcotic producers, handlers and consumers

56. Treatment of narcotic addicted cases

57. Status of narcotic handlers registered

58. Report on export of drugs and herbs by country and amount

59. Status of drugs imported/exported by Ginseng, manufactured drugs, raw materials, sanitary materials, cosmetics, etc.

60. Welfare facilities activity report

61. Sports and leisure facilities

62. Housing status

Attachment VI

Analysis of Spacial Accessibility to Medical Care Facilities- A Feasibility Study of Medical Regionalisation

1. Objective: Provide specific information for an even distribution of health resources and the development of effective medical referral system by determining possible spacial accessibility to existing health facilities and status of distribution of health resources.

2. Object:

   a. All doctors practicing medical professions.

   b. Hospitals, clinics, health centers and health sub-centers in the whole country.

   c. Para-medical doctors assigned to doctorless Myeon.

   d. Residents by local administrative units(Ri and Dong).

3. Methods of Study in Process:

Both quantitative and qualitative analyses are being made by estimating number of residents in the possible line of accessibility to health facilities at a given time and establishing a health care delivery system in three stages of primary, secondary and tertiary medical care functions, as well as comparing number of population per physician, general practitioner and specialist.

3.1. Establishment of accessible lines to medical care facilities at a given time.

It has been established two circle lines of accessibility within half an hour and one hour, respectively, centering the existing medical care facilities, in consideration of terrain, traffic and other transportation conditions, as well as administrative districts.

At the same time, a criterion of extension of the accessible lines was made, taking into consideration of bus lines and its running frequencies.

The measure of extension is summarized as follows:*

	Frequency of Two-way of Bus	Expansive Distance within 30 minutes	Expansive Distance within 1 hour
Type 1	1 times	- Km	- Km
Type 2	2-3	-	1.2
Type 3	4-6	0.3	3.3
Type 4	7-12	0.9	5.4
Type 5	13-24	1.5	7.5
Type 6	25-48	2.1	9.6
Type 7	49-99	2.7	11.7
Type 8	100 or over	3.3	13.8

Note: 1. Walking distance: 2 kilometers a half an hour and 4 kilometers an hour.

* Details of the calculation will be appeard in the final report.

The estimated population rates of accessibility to medical care facilities in the four povinces are presented in Tables 1 - 5.

3.2. Design of Medical Referral System.

Primary Medical Care

Facilities: a. Clinics, health centers and health sub-centers with general practitioners.

b. Clinics with specialists, which can not perform secondary care.

Reasons: a. First contact to patients.

b. Relatively simple care.

- vaccination and dosage,
- health consultation and examinations,
- simple surgery.

c. Emergency care.

Secondary Medical Care

Facilities: a. Hospitals with at least four of the following specialists respectively:

- internist, general surgeon, OBGY doctor and pediatrician.

b. The places where the four specialists practise are considered as an area available of secondary care, even though they are working separately in city, Eup or Myeon.

Resons: a. High rate of patients visit to these facilities.

b. Pediatric clinics for infants are considered to be important for their health and reduction of the mortality rate.

Tertiary Medical Care

Facilities: a. Medical school hospitals, public and private general hospitals equivalent of medical school hospitals, and special hospitals.

Reasons: a. The services of specialists and medical equipment are available for general medical care.

Table 1

Summary of Estimated Population Rates of Accessibility to Medical Care Facilities

Unit: per cent

Provinces	Estimated Population Rates Accessible Within	
	Half an hour	One hour
Chung Cheong Bug Do	48.8	77.3
City	91.7	98.2
Gun	39.2	72.6
Cheon Ra Bug Do	50.0	78.6
City	91.4	98.8
Gun	38.0	72.7
Cheon Ra Nam Do	46.3	70.6
City	93.9	96.6
Gun	30.7	62.2
Gyeong Sang Nam Do	54.7	79.3
City	93.8	97.8
Gun	38.4	71.6

Table 2

Chung Cheong Bug Do

City/ Gun	Population	No. of Physician	Residents Accessible to Medicare Facilities within. 30 minutes	%	60 minutes	%
Total	1,533,147	185(27)	748,797	48.8	1,184,815	77.3
City total	280,937	87	257,566	91.7	275,577	98.2
Cheong ju	177,630	58	174,610	98.3	177.630	100.0
Chung ju	103,307	29	82,956	80.3	98,142	95.0
Gun total	1,252,221	98(27)	491,231	39.2	909,043	72.6
Cheong Weon	203,798	12	66,462	32.6	145,663	71.5
Bo Eun	101,254	12(3)	39,899	39.4	74.565	73,6
Og Cheon	103,546	8(3)	43,311	41.8	78,547	75.9
Yeong Doug	111,770	11(3)	48,008	43.0	82,399	73.7
Jin Cheon	77,570	7(2)	33,351	43.0	62,835	81.0
Goe San	145,964	15(1)	58,506	40.1	110,617	75.8
Eum Seong	111,447	5(4)	54,180	48.6	91,555	82.2
Je Cheon	170,186	16(2)	91,716	53.9	135,794	80.0
Jung Weon	132,477	7(3)	27,946	21.1	74,001	55.9
Dan Yaug	91,198	5(5)	27,852	30.5	53,067	58.2

( ) Residentships assigned to Myeon

* Excluded assigned residnetships as medicare facilities.

Table 3

Cheon Ra Bug Do

City/ Gun	Population	No. of Physician	Residents Accessible to Medicare Facilities within 30 minutes	%	60 minutes	%
Total	2,471,423	408(37)	1,236,576	50.0	1,941,476	78.6
City total	557,229	287	509,049	91.4	550,597	98.8
Cheong ju	303,261	193	267,579	88.2	296,629	97.8
I Ri	111,588	32	108,388	97.1	111,588	100.0
Gun San	142,380	62	133,082	93.5	142,380	100.0
Gun total	1,914,194	121(37)	727,527	38.0	1,390,879	72.7
Wan ju	171,446	5(3)	47,149	27.5	103,096	60.1
Jin An	95,646	5(3)	22,548	23.6	64,293	67.2
Mu ju	71,537	8(1)	22,434	31.4	51,425	71.9
Jang Su	73,126	6(1)	31,812	43.5	56,540	77.3
Im Sil	107,521	6(3)	31,267	29.1	67,684	63.0
Nam Weon	179,250	18(5)	85,301	47.6	137,076	76.5
Sun Chang	93,724	4(5)	30,316	32.4	59,406	63.4
Jeong Eug	257,341	21(3)	132,715	51.6	208,011	80.8
Go Chang	178,838	8(2)	57,408	32.1	112,462	62.9
Bu An	156,488	10(3)	55,526	35.5	114,142	72.9
Gim Je	229.580	15(4)	104,583	45.6	180,091	78.4
OG Gu	120,352	6(3)	47,083	39.2	98,769	82.1
Ig San	179,324	9(1)	59,385	33.1	137.884	76.9

( ) Residentships assigned to Myeon

Table 4

Cheon Ra Nam Do

City/ Gun	Population	No. of Physician	Residents Accessible to Medicare Facilities within			
			30 minutes	%	60 minutes	%
Total	4,126,951	693(21)	1,909,088	46.3	2,915,118	70.6
City Total	1,016,683	510	954,553	93.9	982,007	96.6
Guang ju	588,662	394	553,048	94.0	567,352	96.4
Mog Po	194,525	60	183,672	94.4	191,329	98.4
Yeo Su	127,925	31	119,610	93.5	124,343	97.2
Sun Cheon	105,571	25	98,223	93.0	98,983	93.8
Gun Total	3,110,268	183(21)	954,535	30.7	1,933,111	62.2
Gwang San	137,..7	10(2)	69,388	50.4	114,942	83.4
Dam Yang	113,097	7(1)	26,231	23.2	70,688	62.5
Gog Seong	97,249	5	29,462	30.3	58,869	60.5
Gu Rye	73,164	6(1)	31,207	42.7	57,112	78.1
Gwang Yang	93,164	5(1)	37,440	40.1	57,061	61.1
Yeo Cheon	154,367	5(1)	30,570	19.8	72,274	46.8
Seung ju	145,394	3(2)	32,311	22.2	76,823	52.8
Go Heung	230,017	14(1)	59,986	26.1	139,903	60.8
Hwa Sun	137,067	5(4)	50,962	37.2	89,950	65.6
Jang Heung	132,638	12	43,109	32.5	87,370	65.9
Bo Seong	168,579	16(1)	63,357	37.6	118,762	70.5
Gang Jin	114,814	12	43,332	37.7	80,381	70.0
Yeong Am	126,455	6(2)	31,090	24.6	71,612	56.6
Hae Nam	212,584	13	45,514	21.4	115,417	54.3
Jin Do	104,031	8(1)	23,924	23.0	48,934	47.0

Cheon Ra Nam Do - continued

City. Gun	Population,	No. of Physician	Residents Accessible to Medicare Facilities within 30 minutes	%	60 minutes	%
Na ju	228,767	9(3)	88,238	30.6	159,376	69.7
Yeong Gwang	149,456	9(2)	46,321	31.0	71,678	61.3
Ham Pyung	126,636	8(1)	51,167	40.0	89,577	70.7
Wan Do	146,743	8(1)	40,215	27.4	84,251	57.4
Jang Seong	121,521	7(2)	44,762	36.8	82,122	67.6
Mu An	132,882	6(1)	34,739	26.2	82,994	62.5
Sin An	163,626	9(2)	31,230	19.1	83,015	50.7

( ) Residentships assigned to Myeon

Table 5

Gyeong Sang Nam Do

City/ Gun	Population	No. of Physician	Residents Accessible to Medicare Facilities within 30 minutes	%	60 minutes	%
Total	3,317,068	417(48)	1,814,801	54.7	2,630,313	79.3
City Total	975,989	232	915,339	93.8	954,936	97.8
Masan	360,265	101	340,804	94.6	355,456	98.7
Jinju	154,859	37	143,091	92.7	146,526	94.9
Chung Mu	67,225	17	63,292	94.2	65,612	97.6
Jin Hae	101,166	23	97,229	96.1	99,964	98.8
SamCheonPo	58,558	9	44,199	75.5	53.462	91.3
Ulsan	233,916	45	226,724	96.9	233,916	100.0
Gun total	2,341,079	185(48)	899,462	38.4	1,675,377	71.6
Jin Yang	120,552	5(3) 5	31,825 *28,167	26.4 23.4	72,818 59,004	58.7 48.9
EuiRyeong	88,170	4(3) 4	22,672 *17,753	25.7 21.1	54,034 37,179	61.3 42.2
Ham An	104,091	7(3)	36,774 *30,349	35.3 29.2	71,834 57,413	69.0 55.2
ChangRyeong	141,691	14(3) 14	52,955 *45,225	37.4 31.9	98,229 81,449	69.3 57.5
Milyang	189,822	20(2) 20	89,208 *81,799	47.0 43.1	81,449 130,562	57.5 68.8
YangSan	133,100	17	74,915	56.3	108,173	81.3
Ul Ju	118,615	10(2) 10	43,180 *37,795	36.4 31.9	89,164 74,415	75.2 62.7
Gim Hae	204,369	26(3)	93,167 *87,320	45.6 42.7	165,517 152,169	81.0 74.5
ChangWon	98,062	7(2)	33,493 *28,950	34.2 29.5	69,744 62.197	71.1 63.4
Tong Yeong	79,439	2(3) 2	15,164 *11,322	19.1 14.3	39.255 31,250	49.4 39.3
Geo Je	115,500	13(2) 13	48,459 *40,970	42.0 35.5	88,732 78,761	77.0 64.6
Go Seong	115,280	8(3) 8	53,236 *46,042	46.2 39.9	88,761 74,469	68.2 77.0
Sa cheon	87,538	5(2) 5	38,718 *30,577	44.2 35.0	69,452 63,837	79.3 72.9

Gyeong Sang Nam Do – continued

City/ Gun	Population	Physician	Residents Accessible to Medicare Facilities within 30 minutes	%	60 minutes	%
Nam Hae	124,674	10(2)	53,671	43.9	97,802	78.4
		10	*46,851	37.6	90,417	72.5
Ha Dong	125,320	10(3)	43,345	34.6	90,061	71.9
		10	*35,715	28.5	74,108	59.1
Ham Yang	109,472	6(3)	42,526	38.8	71,000	64.9
		6	*34,910	31.9	66,134	60.9
Geo Chang	125,892	5(3)	46,188	36.7	89,632	71.2
			*35,750	28.4	71,942	57.1
Hab Cheon	161,795	10(3)	44,983	27.8	98,909	61.1
			*38,152	23.6	83.637	51.7
San Cheong	97,697	6(3)	34,055	34.9	68,994	70.6
			*27,765	28.4	63,670	65.2

( ) Residentships assigned to Myeon

* Excluded assigned residentships as medicare facilities.

Attachment VII

National Health Insurance Scheme

I. Principle Guidelines

1. First Stage

Total Population 34,080,000 person ('75 census)	Urban	Urban Middle Class 41.2% 14,300,000 person
		Urban Slum (low class) 7.1% 2,470,000 person
	Rural	Rural 51.6% 17,910,000

a. Medical Insurance for general employees' medical insurance for working classes.

b. Medical Care Program for urban dwellers

Indigents: Treatment completely free to insured person

Low Income Class: Partial remission of treatment fee by insured person (for Primary and Secondary Care)

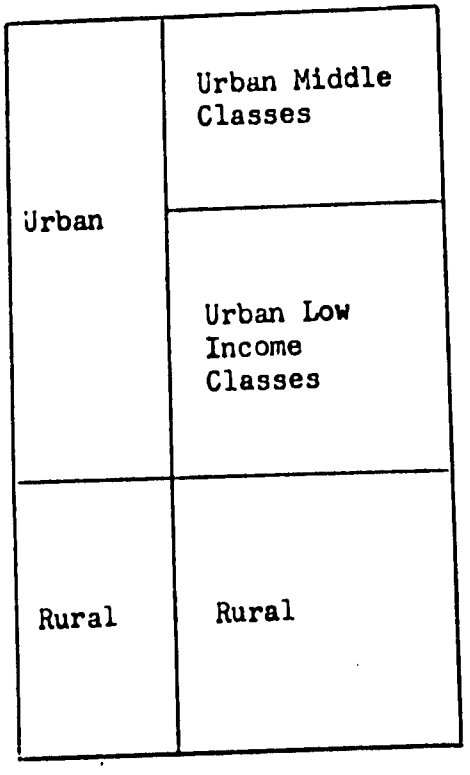
c. Community Medical Insurance

Indigents: Treatment completely free to insured person

Low Income Class: Partial remission of treatment fee by insured person

Note: Throughout text, 1^{o} = primary, 2^{o} = secondary, and 3^{o} = tertiary, health care, respectively.

2. Second Stage



a. Target Population includes wage earners and their family members.

b. Gradual inclusion of hospital health care providers in the insurance program.

c. Nation wide expansion of the medical insurance program target population.

Development of an integrated management system for medical insurance.

II. Community Health Insurance for Farming and Fishing Villages

1. Principles

   a. Establishment of a health care delivery system based on the myeon health sub-center.

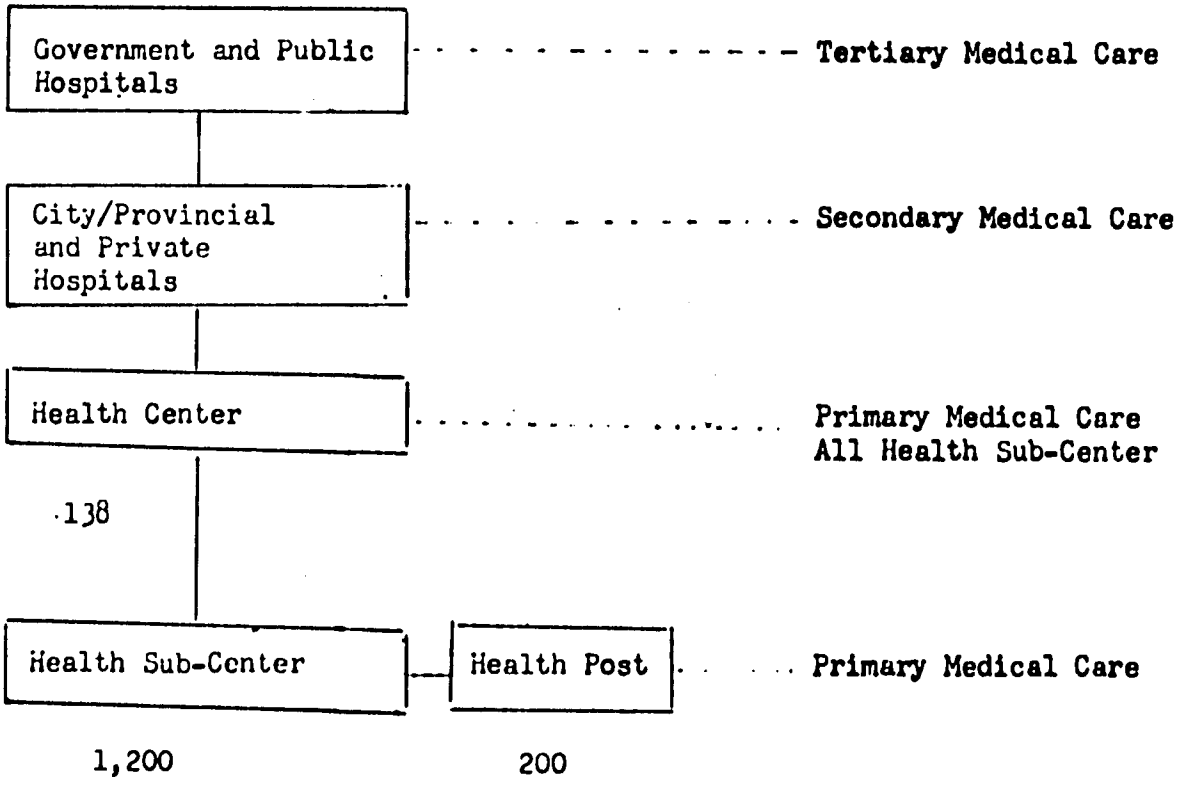
   b. Increased opportunity for farmers and fishermen to receive medical care.

   c. Government aid to establish self help programs for farmers and fishermen.

   d. Synthetic consideration medical care delivery system and financial support system.

2. Plan

- Medical Care Delivery System -



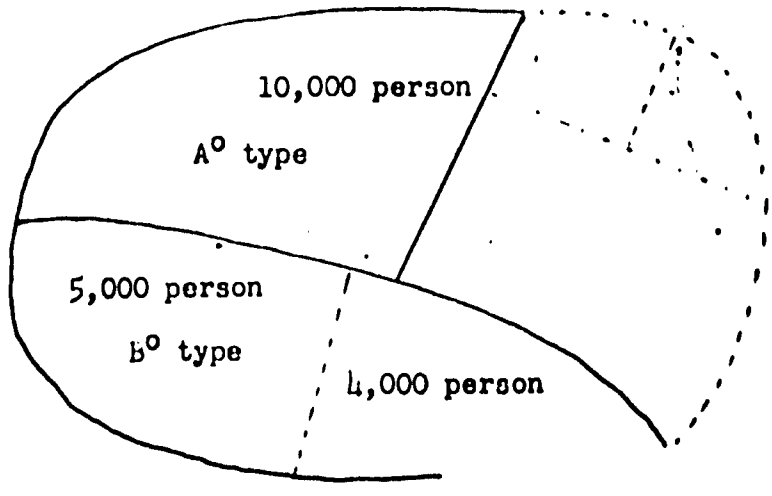
a. Strengthening of the health sub-centers so that they can undertake 1° health care functions

1) Guidelines for establishment

(a) First Stage

Average Myeon Population	No.	Included Myeons	Sub-Center			Health Post
			Total	A	B	
Under 7,000	261	140	1,020	510	510	
7,000-15,000	880	880				
Over 15,000	180	180	180	180		180
Total	1,321	1,200	1,200	690	510	180

- Of the 261 myeons with a population of less than 7,000 persons, 140 will be included in the insurance program first stage.
- In myeons with a population greater than 15,000, a health post will be established in addition to the health center.
- In adjacent myeons, with populations of less than 15,000, one sub-center will be designated "Type A" (with a full time resident doctor) and the adjacent center. "Type B" with a part time doctor.



(b) Second Stage

All type B health sub-centers will be upgraded to type A sub-centers.

2) Function

- Delivery of primary medical care to general patients.
- Communicable disease control, T.B. control, MCH, Family Planning
- Health education, sanitation/water supply supervision
- Collection of health statistics
- Financial support and guidance of locally organized health activities

3) Personnel

	Type A	Type B	Health Post
Physician	1	-	-
Nurse-Midwife	1	1	1
Nurse-Aid	per 2,000 -1 person	per 2,000-1 person	per 2,000-1 person
Public Health Supervisor	1	-	-
Administrative Officer	1	-	-

4) Facilities and Equipment (in consultation with the doctor)

- Building: 45 pyong

(OPD Clinic, MCH Clinic, X-ray Room,

Laboratory, Delivery Room, Multi-Purpose Ward,

Waiting Room, Office, Night-Duty Room)

- X-Ray machine, microscope
- General health sub-center equipment (1 set)
- Additional equipment (examination table ophthalmoscope, delivery pit, misc. equip.)
- Motorcycle
- Health post

  Building 720 sq. m.

  Health sub-center equipment (1 set)

b. Public and private hospitals existing in each gun will be utilized for secondary health care delivery.

c. Expansion and strengthening of the functions of health centers.

1) Function

- Provision of 1^{o} health care service to the myeon and eup in which it is located.
- Administrative support for health sub-center programs (eg. sanitation program)
- Supplementation of sub-center laboratory facilities.
- Implementation of the medical insurance program.

2) Health Center Personnel

Physician	2 (1 - resident or contract doctor)
Public Health Administration Officer	1
Public Health Nurse	2
Dental Hygienest	1
Pharmacist	1
X-Ray Technician	1
Clinical Pathologist	2
Public Health Educator	2
Public Health Statistian	1
Nurse-Aid	4
Clerks	4
Driver	1
Others	1
Total	23

* A doctor in private practice who works part time for the H.C.

3) Facility and Equipment

- Building: 3,600 sq. m.
  (OPD Clinic, Delivery Room, Counciling Room, Laboratory, X-Ray Room, Office, Conference Room)
- Medical Equipment
- Laboratory Equipment
- Dental Equipment
- Vehicle (Motorcycle)

d. Strengthening of Local Organization

- Establishment of health committees at each Health Center and Health Sub-Center.
- Strengthen the New Village Movement and Mothers' Clubs of each li and dong so that they can provide first aid and emergency treatment.

e. Personnel

	Total	Health Center	Health Sub-Center (including H.P.)
Physician	828(138)	138(138)	690
Nurse- Mid-wife	1,814	414	1,400
Nurse Aid	7,552	552	7,000
X-Ray Technician	828	138	690
Administrative Officer	1,794	1,104	690
Dental Hygienist	138	138	-
Pharmacist	138	138	-
Clinical Pathologist	276	276	-
Driver	138	138	-
Other	138	138	-

() = Figures in parenthesis indicate the number of full-time resident M.Ds.

f. Expenditure (Unit: 100 million won)

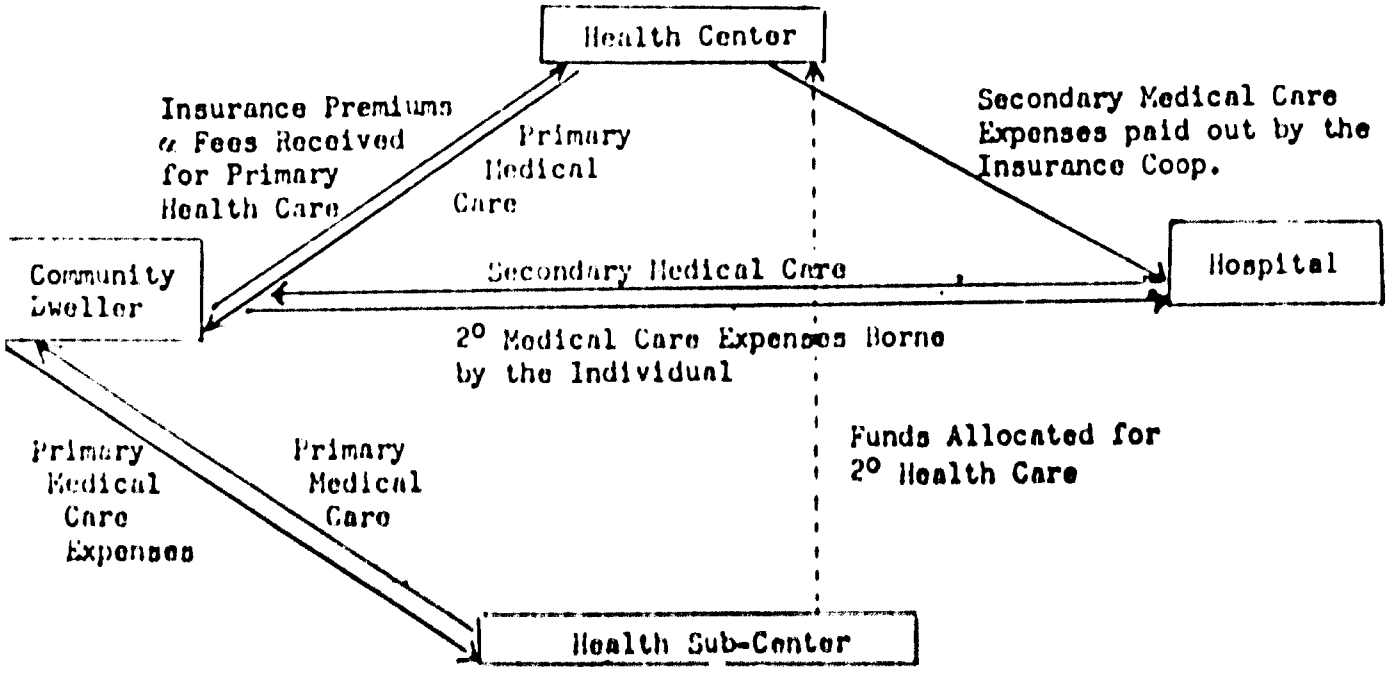
	Health Center	H. Sub-Center	Total
Additional Expenditure for Personnel		52	52
Additional Facilities and Equipment	18	50	68
Total	18	102	120

Note:1.The expenditure for personnel is subject to revision.

2.Sub-Centers with contract doctors are included in these figures.

	Total No. Required	Presently Employed	Additional No. Required
Physician	690	-	690
Nurse or Mid-wife	1,400	-	1,400
Nurse Aid	7,000	4,490	2,510
Public Health Supervisor	690	-	690
Administrative Officer	690	-	690

- Community Medical Insurance System -



1) Eventually the health insurance program will administered through the gun health center, but at first, the basic administrative unit will be myeon health sub-center.

2) Target Population

All community dwellers.

3) The estimated medical insurance cost is W80 per person per month.

4) Insurance premiums for indigents and low income families will be provided by the government.

5) The average cost of a visit to the health sub-center is estimated to be about W500 for 2 days. However participants in the insurance program will pay less than this amount, while non-participants will pay all their own costs.

	Participants	Non Participants
Average Treatment Cost per Clinic Visit	W500	W500
Cost to Cooperative	W250	-
Cost to Patient	W250	W500

6) For 2° Health Center hospital visits, participants in the insurance program will pay 30% of costs, and the government will subsidize indigents and low income earn

7) Secondary health care, except in emergencies, will be given only on a referral basis.

8) The running and maintenance expenses for the Health Sub-Center will be supplied from fees received from treatment and contingency funds.

g. Government Funds (Annual)

(Unit: Million won)

	Insurance Premium	Primary H-C	Secondary H-C	Total
Indigents	260	153	117	530
Low Income Families	962	-	433	1,395
Total	1,222	153	550	1,925

i. Cost Estimate for Medical Insurance

a. Primary Medical Care Cost

Average No. of doctor visits per patient per year - 0.58

Average per capita utilization of drug stores for treatment - 3.35

If one half of the drug store utilization rate is converted to doctor visits: the total number of visits per year is equal to,

$$0.58 + \frac{3.35}{2} = 2.26$$

Rural Population 17,910,000 x 2.26 = 40,476,600

If each doctor visit costs an average of ₩500, the total cost is

40,476,000 x ₩500 = ₩20,238,000,000

b. Secondary Medical Care Cost

Annual Expenditure for in-patient care

Monthly Hospitalization Rate $\frac{1.5}{1,000}$

Expenditure per in-patient ₩80,000

$$17,910,000 \times \frac{1.5}{1.000} \times ₩80,000 = ₩21,492,000,000$$

c. 1^{o} care + 2^{o} care cost Total ₩41,730,000,000

d. If the government provides salaries, and 50% of the cost of 1^{o} health care and 30% of the cost of 2^{o} health care is collected through health insurance premiums, the average cost (1,000,000 won) per year per person is as follows:

- 41,730 - (10,615 + 10,119 + 6,448) + 17,910,000 = ₩812

- The cost per insuree per month is ₩68

III. Health Care Project for Urban Low Income Families

1. Principles

a. All currently existing programs such as New Village Movement(N.V.M.) treatment plan and other free care programs will be consolidated into a more efficient system.

* Current free hospital treatment programs

1) Fifteen per cent of all out-patients must be treated free (MSHA directive no. 212).

2) Each institution must give free care equivalent to 20% of the value of equipment and supplies received as gifts from overseas charactable organizations.

3) Miscelleneous other free treatment programs at individual hospitals.

4) Total amount of free care rendered by hospitals in 1974-1975.

	Hospitals	Free Care Under N.V.M. Free Treatment Plan	Free Care Under MSHA directive & Mobile Clinics	Total
1974	National & Public	229	978	1,207
	Private	278	1,557	1,835
1975	National & Public	179	1,292	1,471
	Private	426	2,172	2,598
Total	National & Public	408	2,270	2,678
	Private	705	3,728	4,433
Grand Total		2,225	11,997	14,222

b. Active participation of medical care organizations to provide free care.

c. The current waste of medical manpower and resources caused by the overlap in services provided by private clinics and hospitals will be gradually eliminated by division of responsibilities for 1^{o} and 2^{o} health care.

2. Basic Plan

a. National and public hospitals and non-profit hospitals which are providing free health care to low income families will establish health care clinics (in low income areas).

b. Land and buildings will be provided by the government, but the cost of administration and maintenance will be born by the health care institutions.

c. Hospitals will be divided into two classes according to their size and total resources.

(1) Function

A (Target Pop. 50,000)	B (Target Pop. 20,000)
a) Primary Health Care b) Public Health Programs Maternal and Child Health T.B. Control Family Planning Environmental Sanitation Health Education c) Dental Care Program	Includes all programs of A class hospitals except, dental care.

(2) Personnel (minimum for classes of hospitals)

	Type A	Type B
Director	1	1
Physician (part time)	2	1
Dentist (part time)	1	-
Mid-wife	1	1
Public Health Nurse	2	1
Nurse-aid	6	3
X-Ray Technician	1	1
Sanitary Engineer and Laboratory Technician	1	1
Pharmacist	1	1
Social Worker	1	1
Clerk	1	1
Messenger	2	1

(3) Public sanitation program undertaken by government support.

d. Basic Plan for Health Service Center

Hospital	Type of Clinic	No. of Person
Over 500 Bed	Type A - 2	100,000 person
250 - 500 Bed	Type B - 1	50,000 "
100 - 250 Bed	Type B - 1	20,000 "
Under 100 Bed	Utilization of Existing Facilities	10,000 "

1) Program Plan

Hospital	No. of Hospital	No. of Clinic	Target Pop (1,000 person)
a. Governmental, Public Hospital	35	36	85
Over 500 Bed	1	2	10
250 - 500 Bed	6	6	30
100 - 250 Bed	17	17	34
b. Private Medical Service Organization	90	91	162
Over 500 Bed	1	2	10
250 - 500 Bed	8	8	40
100 - 250 Bed	31	31	62
Under 100 Bed	50	50	50
Total	125	127	247

2) Medical care expenses (average W500 and 2 days drugs included) paid by non-indigent patients which would be supportive maintenance for outpatient clinics.

3) Clinics transfer patients to hospitals for 2° medical care.

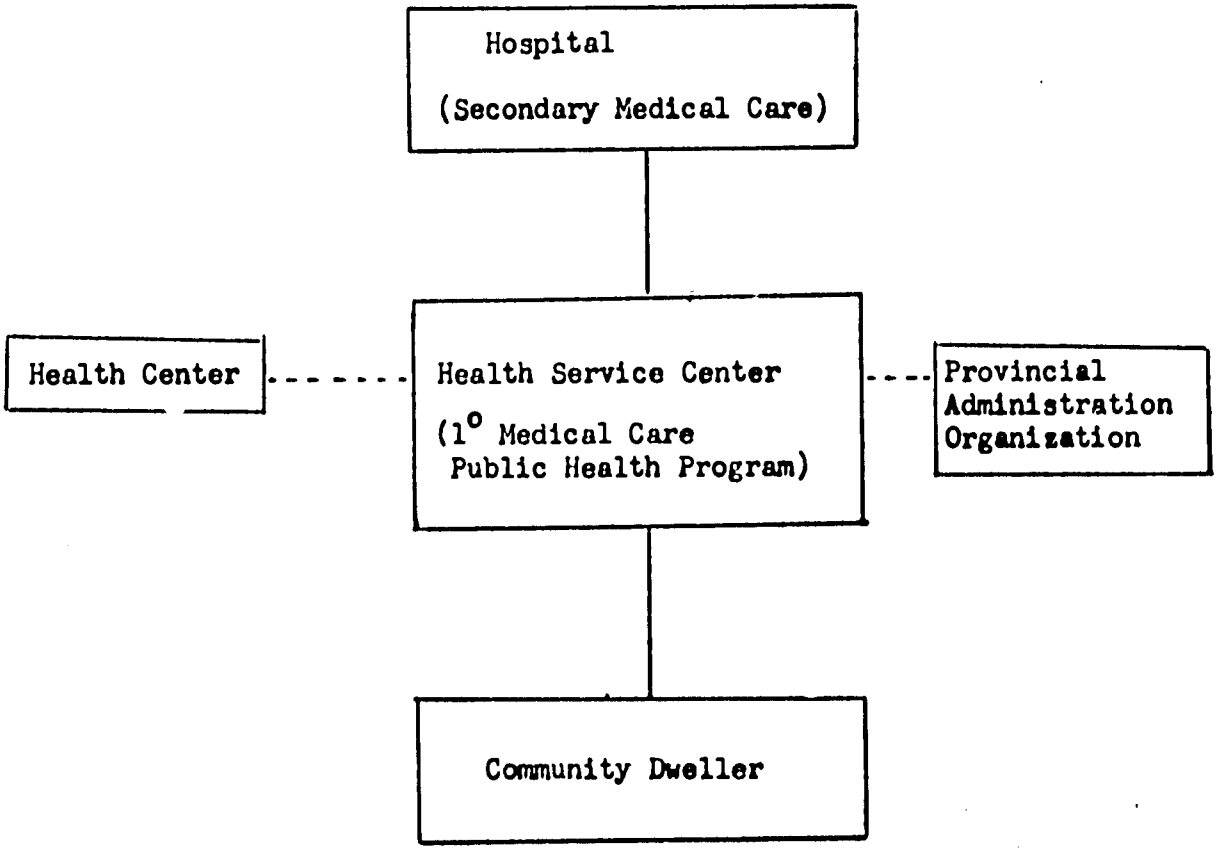
e. Cost of 2° Health Care (per 100,000 won)

	Low Income	Indigent
Hospital	50%	50%
Consumer	20%	0
Government	30%	50%

f. The above program will be administered by the government through a committee composed of the Health Center director and the directors of the Health Sub-Centers.

g. The above program will begin as an accessary to the health care system and gradually evolve into a comprehensive insurance program.

3. Medical Care Delivery System



4. Estimate Budget and Source of Supply

(Unit: Million Won)

		Land	Bldg.	Equip.	Cost of 1° H.C.	Cost of 2° H.C.	Total
Government		420	630			1,130 (435)	2,180 (1,485)
Hospital	National & Public			190	540 +(700)	637 (219)	1,367 (1,109)
	Private			380	1,030 (1,335)	1,215 (419)	2,625 (2,134)
Community Dweller					720 (255)	720 (255)	1,440 (510)
Total		420	630	570	2,290 (2,290)	3,702 (1,328)	7,612 (5,238)

() The figures in parenthesis are expenditures calculated for low income families only.

(Unit: person)

Area	Indigents	Low Income Class	Total
Seoul	14,584	194,733	209,317
Pusan	7,238	45,297	46,020
Other City	48,078	387,378	441,971
Total	69,900	627,408	697,308

5. Net Expenditure by Govt. Hospital

	Expenditure						Income	Expend.
	Bldg.	Land	Equip.	1° H.C.	2° H.C.	Total		
Government	420	630	190	540	1,767	3,547	885	2,662
Hospital			380	1,030	1,215	2,625	1,685	940

IV. Medical Insurance for General Employee

1. Insurance Policy Holder

   Operating as a national insurance system.

2. Participants

   a. Industrial Workers

   b. Government Employees

   c. Private Education Institutional Employees

3. Insurance Premium

   a. Percentage of salary with maximum ceiling.

   b. Workers paying full premium.

4. Beneficiaries

   Gradually extend benefits to worker's families.

5. Items Supported

   Medical services, maternity, and preventive care.

6. Administrative Organization

   a. Administered under Industrial Accident Program, supplemented by government funds.

   b. Premiums would be collected through Bureau of National Taxes pooling accounts maintained in banking system.

* Comparison of Costs by Social Class for all programs

(Unit: %)

Area		Individual	Govt.	Industrial Enterprise	Hospital
Urban					
	* Working Class	100			
	Low Income Class	(W600) 24.7	(W450) 18.5		(W1,377) 56.8
	Indigents	0	(W750) 30.9		(W1,677) 69.1
Rural					
	General	(W1,885) 76.1	(W592) 23.9		
	Low Income Families	(W565) 22.8	(W1,912) 77.2		
	Indigents	0	(W2,477) 100		

Note: Figures in parenthesis indicate the costs per person per year.

* Includes workers covered by Industrial Accident Program, all firms employing 16 persons or more. Program currently covers approximately 1.9 million workers. 2.6 million workers will be covered as program is expanded to cover firms employing 5 or more employees by 1981.

Recommendations of the MHSA for Medical Insurance

1. Summary of MHSA Recommendation

National Program 100%

(Total Population: 33,702,000 person)

Voluntary Self Supporting Participants

93.9% (31,658,000 person)

Organization of insurance cooperatives for industrial workers and community dwellers.

(Participants)

	Target Pop.	Conditions of Participation
Type 1	Employees & employers	Compulsory
Type 2	Self-employed	Voluntary

(Beneficiaries)

Members and their dependents.

(Collection of insurance premiums)

Type 1: Jointly remitted by employee & employer.

Type 2: Remitted on a per capita basis by household.

(Cost of Medical Service)

	Insurance Cooperative	Beneficiaries	Govt. Support
Type 1	78.4%	18.4%	2%
Type 2	48%	32%	20%

- Administrative Costs borne by the Government.

Low Income Participants Requiring Govt. Support for Participation

6.0% (2,044,000 person)

Low Income Class

5.1% (1,726,000)

- Persons eligible for coverage as defined by the national health insurance law Art.3, Part 1, Section 5.

  Persons eligible for coverage are those whose primary supporter is either absent or unable to provide the necessary support.

- Primary H.C. will be provided by the govt. and 2° H.C. will be furnished as a loan to be repaid in installments.

Indigents

0.9% (318,000)

- Persons eligible for coverage in this category are those defined by the National Health Insurance Law, Art. 3, Part 1, Section 1-4 and are as follows:

  1) Dependents over 65 years of age
  2) Dependents below the age of 18 years of age
  3) Pregnant mothers, handicapped, and those with any diseases which prevent them from holding jobs.

- 1° H.C. (OPD) & 2° H.C. (IPD) care provided by the Government.

2. Problems in Medical Insurance

a. Inequality of the burden of medical costs on the individual.

Medical Care Cost Distribution(Percentage)

	Individual	Govt.	Industrial
Employee	49	2	49
Employer	80	20	
Low Income Group	100	0	
Indigents	0	100	

b. It is unreasonable to expect the employer to pay part of the cost of health insurance premiums for employees.

1) The principle of medical insurance is that an individual pays a small premium regularly throughout his life and that the money thus accumulated is used for his medical care expenses.

2) Since the employer's contribution towards the insurance premium is actually a form of taxation, the total program can be considered to be government supported.

3) Also in reality, that part of insurance premiums paid by industry will be shifted to consumers. If certain companies establish cooperative insurance systems, consumers are taxed through higher prices resulting in an implicit subsidy to the employees of those companies. Particularly in the future, if the practice is established in the nonagricultural sectors, the result will be a transfer of

real income from agricultural to nonagricultural sectors in a manner inconsistent with current redistribution of income policies.

4) Therefore, the insurance premium should be paid by the insureds' themselves. Because this premium payment is "heavy" relative to existing wage levels, it is difficult to extend the system immediately to include dependent families.

c. Problems in Government Support of Health Insurance for Low and Indigent Classes.

1) In order to be fair and equal, the government should provide the same amount of health care services for each citizen.

2) However, due to the limitation of governmental resources, medical benefits cannot be equally supplied to all, therefore, the costs of only the most needy will be supplied.

3. Problems in Government Health Insurance Support of Low Income Classes

a. The differentiation of "low income class" and "indigents" in the National Insurance Plan is very difficult, because the only difference is in the "amount and quality of side dishes which they eat". Both groups have very similar needs for aid such that they can participate in the insurance program, however, division into two groups is not very meaningful.

b. 2° Health Care Expenses (average W50,000) - Although it is proposed to loan money to those persons in the "low income class", in actuality the probability of default on these loans is high,

thus creating an additional government "contribution" to medical insurance costs.

c. A possible disadvantage of providing full medical and health care to low income classes and industrial workers is that it will remove the incentive to move up into higher income brackets.

d. Because of inadequate personnel and facilities at health centers, they are presently inadequate to assume the responsibility for 1° H-C on a nation-wide basis immediately. A phased approach would be more appropriate for implementation.

Attachment VIII

Comparison between Budget and Expenditure

As of September 30, 1976

Item	Component	Budget (W)	Expenditure* (W)	Balance (W)	Remarks
1. Personnel Expenses		2,073,150	825,325	1,247,825	
	a. Salary	1,662,400	528,900	1,133,500	
	b. Bonus	410,750	296,425	114,325	
2. Travel Expenses		2,050,600	40,000	2,010,600	
3. Stationery		1,153,900	181,700	972,200	
4. Vehicle Procurement and Operation		3,644,220	3,818,780	△ 174,560	
5. Office Supplies		3,161,812	874,384	2,287,428	
	a. Equipment	1,960,000	30,000	1,930,000	
	b. Supplies	1,201,812	844,384	357,428	
6. Special Grants		825,000	700,000	125,000	
	a. For participants of meetings	125,000	-	125,000	
	b. For special duties of staff	700,000	700,000	0	
7. Others		2,592,230	800,755	1,791,475	
	a. Communication	157,330	23,355	133,975	
	b. Allowances for consultation	625,000	-	625,000	
	c. Research grants	1,047,500	570,000	477,500	

	d. Books	555,000	-	555,000
	e. Office maintenance	207,400	207,400	0
Total		15,500,912	7,240,944	8,434,528

* See statements on page 68.

Statement of Expenditure

Categories	Expenditures (W)
Salary of two staffs for five months	528,900
Bonus of ten staffs	296,425
Travel expenses (transportation fee in Seoul)	40,000
Xerox	40,662
Printing of the 1975 Health Planning Research Project final report by Dr. Jung Soon Kim, SNU	106,633
subscription fee of three local newspapers	5,400
Stationery	29,005
One vehicle (New Cortina)	2,882,500
Operational costs of vehicle	936,280
11 items including 3 cabinets, one sofa set, etc.	844,384
Typewriter desk for Korean typewriter	30,000
Special grants for duties for 5 months	700,000
Research grants for 5 months	570,000
International telegram to Dr. Paul Fisher, Social Security Administration to obtain "Delivery of Health Services for the Poor" (USA)	7,875

International telegram to Dr. Chong Kee Park to inform him of the changed itineray (Belgium)	15,480
Office maintenance for five months	207,400
Total	7,240,944